DRAFT

AIS Programming Standards

Screens, Function Keys, and Online Help

Screen Standards

3270 (CICS) Screens

Introduction

Online screens developed by AIS will comply with this standard to ensure consistency in the CICS screens. Purchased software will be tailored to comply with this standard to the limits of vendor-supplied tailoring facilities. All design decisions affecting screen layout and PF Keys will be consistently applied throughout the application, and preferably across applications.

Detail

There are four specific areas that make up an online screen.

- **Header**
  The header is the top part of the screen. It will consist of two or more lines. The first line will contain the following fields:
  - 'UCLA-AIS' - left justified
  - System Name - centered
  - Date and Time - right justified **or**
    Program or Screen ID - right justified

  The fields displayed on the second line may include:
  - Program ID - left justified
  - Screen Name - centered **or**
    Date and Time - centered
  - Page/screen number in the format of 'Page xxx of xxx'.

- **Body**
  The body is the main working area for input and display of the application data directly beneath the header. The design should emphasize clarity and consistency of the:
  - field descriptions
  - required actions
  - natural flow of processing logic for highest users productivity
  - data format (e.g., date, keys, etc.)

- cross-application usability

- **Message Area**
  The Message Area is used to display the application error message, warning message, or instructional messages (e.g., Status, next steps, etc.). It is made of one or two lines, and is located under the Body area.

- **Footer**
  The footer area is used to specify function keys that are active for the screen. The footer is displayed at the bottom one or two lines of the screen. The description will describe the special key followed by a brief description of the function.

GUI Screens

Introduction

This list of guidelines, based on practical experience, is intended to outline the department's preferred conventions of user friendliness and attention to human work factors. AIS uses several different tools in systems development: Visual Basic, Powerbuilder, and Clientbuilder. Each software package has somewhat different features. In addition, the department has books and other reference materials covering GUI design in detail. Developers should familiarize themselves with the package being used and with these materials before beginning a project.

Help users understand the tasks

- Every window should have a title bar with a name distinctive enough for user's to identify it quickly and easily.
- Keep language short and clear. Provide context sensitive help where possible, explaining what an actions means, particularly for action buttons. 'Cancel', 'exit' and 'update' do not mean the same thing to everyone!

Help users work efficiently

- Help users avoid hand and eye fatigue with design.
- Windows should flow from the top left to the bottom right. Placement should guide the eye in this manner.
- Use color for distinction, e.g., required vs non-required field. However, use colors sparingly, use grey and pale colors to cut down on eye confusion. Use sound very sparingly: beeps rapidly become annoying.
- Use point and click widgets, e.g., radio buttons, drop down lists and check boxes, for choices rather than text entry.
- Put sections with required typing together to reduce required hand motions.
- Short cut or command (PF) keys should be built into data entry screens to assist entry performance. These keys should conform as closely as possible to standards for mainframe function keys (link.)
- Icons must be readily and universally identifiable, otherwise use text buttons. Use icons carefully and sparingly to reduce visually noise and misinterpretation.
- Break information into logical groups of windows or actions. Don't overload and clutter windows.

- Error handling messages should be clear and descriptive, provide actions for users to follow to correct the mistake.
- Provide feedback messages to tell the user what is happening, e.g. 'Processing complete. Continue?'. System waiting should be indicated with a message in addition to an hourglass.
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Development guidelines

- Consistency is important for understanding. Choose a tone and stick to it. Buttons, color, sound, and basic layout should be used in the same manner throughout. Avoid jargon.
- Use templates where available in development tool. These increase consistency of design and make universal changes possible/ Alterations to windows, button bars, etc. can be handled universally.
- Get user feedback early, during development process. Don't wait for completion. They are the most familiar with the required tasks and their logical order. Use this feedback and testing to help develop training in system use.
- Pop-up windows should be modal, i.e., they don't go away until the action is complete, in order to avoid losing windows and incomplete tasks.
- Data display should have multiple sorting and viewing options which are logical to the data: e.g. date, frequency, and name sequences. Filter function should be incorporated as well as zoom buttons where possible.

Function Keys

The following list describes how Function Keys should be used by applications.

Key	Name	Description
F1	Help	Provides contextual help when the cursor is on a specific field on a screen/panel. When the cursor is not on a specific field, F1 provides extended help about the application screen/panel (e.g., what the screen is used for).
F2		Application defined; 'jump key' if applicable.
F3	Exit	Exits the current screen and goes to the previous Menu.
F4	Prompt	Provides a list of values for a specific field, preferably as a pop-up window through CICS.help.
F5	Refresh	Restores the screen to its original condition, this includes clearing selection criteria.
F6		Application defined; possible print key.
F7	Bkwd	Scrolls backward within the same screen.
F8	Fwd	Scrolls forward within the same screen.
F9	Confirm	Confirms update or delete, i.e., commits changes to the data base.
F10		Application defined; scroll right or previous, if applicable.
F11		Application defined; scroll left or next, if applicable.
		Cancel exits the screen and goes to the previous screen, which

F12	Cancel	is not necessarily a menu, but usually is a series of screens used to perform a unit of work.

Online Help

Under development

Related Policy, Procedures or Standards

see also:

- Naming Standard
- Walkthrough Standards
- Accountability & Exceptions

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